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Brainstorming as a Tool for the Benchmarking For Achieving Results in the Service-Oriented-Businesses (A Online Survey: Study Approach)

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Abstract— How to benchmark is the problem and this paper produces out an outline on a typical research methodology using the brainstorming technique in order to come to the effective conclusions. With the commencement of the STEP (Socio-Cultural, Technical ,Economical and Political) reforms in the previous years , business environments are in a state of dynamic change and the change process is still continuing .There had been a tremendous acceleration from the tradition and the inward looking regime to a progressive and the outward looking regime of the policy framework. With the L.P.G. (Liberalization , Privatization and the Globalization) in almost all the sectors of the STEM (Science, Technology, Engineering and Medicine), the roles of the different sectors are undergoing Fundamental/Conceptual changes opening up new sets for analyzing the SWOT (Strength, Weakness, Opportunity and Threat) for the business sectors .The main aim of the Six Sigma concept is to make the results were right the first time, every time. So benchmarking is to be done for the profitability and the revenue growth of the organizations . Brainstorming results could be well interpreted with the superposition matrix considering the ABC and the VED analysis as the same has been tested in the designs of the inventory control .

Keywords: Benchmarking, STEP, STEM, LPG, ABC, VED

I. INTRODUCTION

The rate of improvement for the world's best practice is Benchmarking .The term "Business" means the exchange of the goods , money or the services for the mutual benefits (McNoughton). Any business dealing with the services as a product is dependant upon the following for the growth and the sustainability .For a service [TB-4]Table-1 Service and its Definitions

Sl No.	Definition	Sl No.	Definition
1	Effectiveness is how good the output is from the process .	4	The timelines indicate if it is late by how much.
2	Efficiency tells how well the resources are used.	5	Feedbacks enable savings by preventing the employees in not continuing to make the errors and also that the resources were not added to an already effective system.
3	Reliability indicates that how many times the business process measurement is correct.		

The research Questions faced as a challenge before the actual start of this new benchmarking process :

Table-2 Research question(s) and Challenges

SlNo.	Challenge	SlNo.	Challenge
1	Where do we want to be ?	5	How are we going to do it ?
2	Where are we now?	6	Why is it being implemented and how ?
3	What do we need to get from here to there ?	7	How much of the attention should be prioritized for the benchmarking activity which implements brainstorming as the tool for obtaining the results?
4	Why it is necessary ?		

II. THEORETICAL BACKGROUND

In any service oriented businesses , benchmarking is an essential task the managements and the administration to sustain in the markets and the questions could only be answered if a proper brainstorming is done with the suitable business partners .

Table-3The 10 step process of Xerox Benchmarking (Conventional): [TB-2]

Steps	What to do ?	Steps	What to do ?
1	Identify the benchmarking subject	2	Identify the comparative companies
3	Determine the data collection method	4	Collect the data
5	Determine the current competitive gap	6	Communicate the findings
7	Gain the acceptance	8	Establish the functional goals
9	Develop the action plans	10	Implement the plans
11	Monitor the progress	12	Recalibrate the benchmark

Table-4 Now the key Success Factors(KSF's) for the benchmarking could be put as : [TB-2]

Sl No.	KSF	Sl No.	KSF
1	Understanding of ones own processes thoroughly.	6	Sensitive information should always be kept confidential.
2	Visits should not be arranged until sufficient desk research has been carried out to ensure that the companies selected are the only best that could be found.	7	Getting the process owners or the operators to carry out the benchmarking studies is seen as being critical ; trying to involve the people after the study would be too late.
3	The focus must be on the industry best practices .	8	Do not concentrate on the outcomes ; it is only the practices and the processes that are to be understood .
4	There must be the willingness to share the information.	9	Benchmarking must be a continuous process ;the competition is continuously changing.
5	Reciprocal visits are to to be arranged if really required .	10	There must be the willingness to change based on the benchmarking findings .

And the relevance of the CSF's in benchmarking:
CSF should be linked to the mission statement ,SF portrays the total picture , SF measures the profit, CSF measures the cost, CSF measures the on-time delivery of the performance , sales ,etc.
Important Learning :CSF should be limited to 6-8 and not more than 12.
CSF are the critical factors or the activities requires for ensuring the success of the business .This could be for the world of Data Analysis and the Business Analysis .
Critical –To-Quality (CTQ's) is defined as a process or a product indicator whose performance standards or the specification limit is to be met for the customer satisfaction .

CASE-STUDY -----An online survey
There are three types of the case studies namely Exploratory,Explanatory and Descriptive (Yin,1994).An online survey was conducted in an exploratory manner to collect the data anonymously by providing the 02 questionnaires to the same person and asking him/her to fill up the same considering himself/herself ones as a Customer and ones as a Service Provider .The details of the questionnaire and the responses received with the analysis are as enclosed in the annexure .The name of the software that has been used is esurveyspro.com [WB-3]which had been used to create the online survey ,manage the online survey ,custom the survey titles online and manage the invitations online .

III. RESEARCH METHODOLOGY

step-1. A copyrighted questionnaire was prepared as enclosed in the Annexure .
step-2. The same individuals were invited online to act as a customer ones and as a service provider ones .
step-3. The results were collected online and the summary report along with the detailed report were also obtained online .
step-4. The graphical results were also obtained through the same software for all the 40 questions put together (40 graphs were obtained).
step-5. The results obtained after the same were analyzed using the SPSS software for the reliability test and the results obtained are as enclosed in the Annexure .

The newly designed process of the Benchmarking is as mentioned below(Based upon the experience):

step-1. Invite the qualified partner for the brainstorming but not from the same background .(Let the total population be 100)
step-2. Specify the selected problem to the group . (Let the sample population taken be for 30 as verified in the excel program –enclosed in the Annexure)
step-3. Start collecting the ideas through the network system from the PC 's kept in-front of each of the participants .(Let the total collection of the ideas be 30 in number)
step-4. Sort out the common and the Uncommon solutions provided by the participants .(Say there are 05 common answers, 03 most common answers and the remaining could be the uncommon answers , but keep this in mind that every answer collected through this process should be ranked 1to n & ranking for the common answers should be given more priority). Move to step-6 directly from here .
step-5. Provide the ranking to all the answers provided by the participants accordingly as mentioned in the table-A

below. In this case ranking for the 05 commonly obtained answers should be better than that with the 03 commonly obtained ones .

step-6. Now again call for the opinions against the common answer received (if) or pick up the 1 ranked answer for the analysis .

step-7. Note down the advantages and the dis-advantages associated with the answer that had been finally obtained . If the count of the advantages is greater than the count of the disadvantages then the same answer qualifies for the next level of judgement .

step-8. Rank-up the advantages and andmatch the same with the ranked answers put through earlier in step-5.

step-9. If the advantages of the common answer matches with the answers or the advantages of the answers as mentioned in Table-A , then the answer could be confirmed/judged for the Benchmarking .

step-10. Fill up the Tables-A, B and C .

step-11. Through the solution onto the audience who had participated in the step-1 and if the same is passed by everyone,consider the same as the generalized one .

The below mentioned tables provided in the annexure (S) Table-A / Table-B /Table-C act as the aids for the same . for the

IV.RESULTS &DISCUSSIONS

The following comes out as the guidelines for all the implications:

1. The COQ (Cost of the Quality) and the VOQ (Value of Quality) should always get balanced .
2. The Requirements and the Specifications should always get balanced .
3. The VOC (Voice of the Customer) and the VOB (Voice of the Business) should always be balanced.

If the process capability is greater than or equal to 1.34, then the process is capable.

If the process capability is less than or equal to 1.33 , then the process is incapable .

If the process capability is equal to 1.33 , then the process is barely capable.

If the process capability lies between 5-10 , then the process is over-killed and this implies that the resources are excessively used . Moreover there are process capability checking softwareswhich are also available as the free and the open sourcesoftwares which could be used to verify the level of the process capability reached for judging the decision made on "Brainstorming as a tool for the Benchmarking for achieving results in the Service-Oriented-Businesses (A ONLINE-SURVEY Study approach)".The results of the brainstorming could be interpreted by Superimposition of ABC & VED as the solutions are nothing but the ideas taken out of the inventory .[4]Table-5 Superimposition Principle

	A-Class	B-Class	C-Class
Vital	I	II	III
Essential	II	III	IV
Desirable	III	IV	V

The figure shown is the superimposition principle with the combinations A-V, A-E,
A-D,B-V,B-E,B-D,C-V,C-E & C-D.I, II, III, IV & V are the solutions obtained by the procedure of the brainstorming as mentioned earlier .

Table-6 Interpretation of Table-5

Solution	Importance
I	A & Vital
II	A & Essential ; B & Vital
III	A & Desirable ; B & Essential ; C & Vital
IV	B & Desirable ; C & Essential
V	C & Desirable

V. CONCLUSIONS:

This proposed methodology of obtaining the results with "brainstorming as a tool for the benchmarking for achieving results in the Service-Oriented-Businesses (A ONLINE-SURVEY Study approach)" was an attempt to confirm that benchmarking could be done with the brainstorming provided a research oriented tool like a software is developed in order to provide the facility as mentioned below.

Opinions collecting software → ranking of the opinions → finding out the advantages/disadvantages → check whether the advantages are greater than the disadvantages.

If yes,carrying out the pilot study on the known sample and matching that with the advantages /disadvantages associated with the remaining ranks and Stop.If no, ,repeat the process again till the final results are obtained .

VI.FUTURE SCOPE OF WORK

1. The future of this work could develop a free and open source software on the web which could produce the results automatically ones the invitations are launched and the results might automatically be communicated as a report in the form of the

Single page or in the form of a graph , as a single graph is equivalent to the 'n' number of pages put together and the best things could be better taken up from the graphs enclosed in the Annexure(s).

2. To expand the work in-terms of the Critical-To-Quality measures ?A key process input variables ?A key process output variables ? Critical success factors ? Standard tools ? Standard Techniques ? Benchmarking Standards ? Brainstorming Standards ?

3. To verify this process for the best results of process capability , process availability and six-sigma results .

Annexure (S)

Table-A representation for the Answers to be utilized for the further confirmations judgements

Ranking No (S).	Answer (S) provided	System No (S) / Name of the participant	Count of the advantages (A)	Count of the Disadvantages (B)	Results for the acceptable answer(s) A>B	Any other (S)
Only those answers could be selected for the later course (S) of discussions wherein the advantages are more than the disadvantages .						

Table-B Representation for obtaining the grade(S) for the confirmed answer (S)

Answer Confirmed	Advantages associated	The disadvantages associated	Matching answer no. / advantage no.	Grade for the match	Communicate the result as the benchmark answer

Table-C Representation for the Grade – Chart

Grade	O	A^+	A	B^+	B	C^+	C	D	E	F	Nil Grade
Scores	91-100	81-90	71-80	61-70	51-60	41-50	31-40	21-30	11-20	1-10	No Score or Zero
No Score or Zero-Discard and repeat the procedure freshly with the new participants											